

Amendments to the Drawings:

The sheets of drawings attached in the Appendix includes an Amendment to Figure 6 and a new Figure 6A. Figure 6 has been amended as follows:

The separator indicated by reference numeral 90 has been cancelled from Figure 6 as requested by the Examiner.

New Figure 6A includes a diagrammatic view of a cable jacket including a core element which includes a separator. New Fig. 6A is fully supported by, for example, paragraph [0059] on page 12 of the Specification, wherein it states, "Additionally, the core element may include any combination of conductors, insulation, shielding and separators as previously discussed."

REMARKS

The Office Action mailed March 23, 2006, has been received and the Examiner's comments carefully reviewed. Claims 121 and 124 have been withdrawn. Claims 77, 79, 86, 88-95, 99-104, 114, 116, 119-122, and 124 have been editorially revised for consistency in the claim language and for clarification purposes. No new matter has been added. Amendments to claims 89, 100, 104, and 114 are also supported by, for example, Fig. 6 of the application and the description on page 12, paragraph [0059] of the current specification. No new matter has been added. Favorable reconsideration of this application is requested in view of the following remarks.

Election/Restrictions

The Office Action states that claims 121 and 124 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a non-elected group, there being no allowable generic or linking claim. Applicants respectfully submit that, although claims 121 and 124 are not readable upon the elected species, Applicants request to leave claims 121 and 124 pending in the application for allowance with the generic claim from which they depend.

Drawings

In the Office Action, the amended drawing filed on 7/20/05 has been objected to under 35 U.S.C. 132(a) for introducing new matter into the disclosure. The Office Action states that separator 90 on replacement Fig. 6 is new matter and was not previously disclosed in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Applicants have been required to submit a proposed drawing correction in reply to the Office Action.

Applicants respectfully traverse this objection. However, in order to expedite the prosecution of this application, Applicants have cancelled "separator 90" from replacement Fig. 6.

Applicants also are submitting herewith the Response a new Fig. 6A. New Fig. 6A includes a diagrammatic view of a cable jacket including a core element which includes a

separator. Fig. 6A is fully supported by, for example, paragraph [0059] on page 12 of the Specification, wherein it states, "Additionally, the core element may include any combination of conductors, insulation, shielding and separators as previously discussed." The Brief Description of the Drawings section of the Specification has been amended accordingly to refer to the newly added Fig. 6A.

Specification

In the Office Action, the amendment filed on 7/20/05 has been objected to under 35 U.S.C. 132(a) for introducing new matter into the disclosure. The Office Action states that at page 12 of the amended paragraph [0059], the phrase "separated by a separator 90", discloses new matter because the original disclosure did not describe that the separator separates the twisted pairs.

Applicants respectfully traverse this objection. However, in order to expedite the prosecution of this application, Applicants have amended the Specification as seen in the Amendments to the Specification section of this paper to cancel the phrase "separated by a separator 90" in accordance with the Examiner's requirement.

Applicants have also amended the Brief Description of the Drawings section of the Specification as seen in the Amendments to the Specification section of this paper to refer to the newly added Fig. 6A. as noted above.

Claim Rejections - 35 USC § 112

In the Office Action, claims 89-103, 114, 117, and 119 have been rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The Office Action states that the claims contain subject matter (a separator positioned within the jacket) which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors, at the time the application was filed, had possession of the claimed invention.

Applicants respectfully traverse this rejection. However, in order to expedite the prosecution of this application, Applicants have amended claims 89, 100, 104, and 114 as seen in the Amendments to the Claims section of this paper to cancel the phrase "a separator positioned within the jacket" in accordance with the Examiner's requirement. Claims 89, 100, 104, and 114 have been amended to recite "the core including a separator". Applicants respectfully submit that the amendment to claims 89, 100, 104, and 114 is fully supported by page 12, paragraph [0059] of the original specification, wherein it states, "Additionally, the core element may include any combination of conductors, insulation, shielding and separators as previously discussed."

Thus in view of the above, withdrawal of the 35 U.S.C. 112, first paragraph rejection is respectfully requested.

Claim Rejections - 35 USC § 102

In the Office Action, claims 77-80, 83, 86-88, 104, and 111 have been rejected under 35 U.S.C. 102(e) as being anticipated by Clark (US 20050269125A1). Applicants respectfully traverse this rejection.

As indicated in the filing receipt (a copy of which is enclosed herewith the Response), the present application claims priority from co-pending U.S. Application Serial. No. 10/389,254, filed March 14, 2003, which in turn is a Continuation-In-Part of U.S. Application Serial No. 10/321,296, filed December 16, 2002, now U.S. Patent No. 6,743,983, which in turn is a Continuation-In-Part of U.S. Application No. 10/253, 212 filed September 24, 2002.

All of the subject matter claimed in the present application is supported by at least the disclosure of co-pending U.S. Application Serial No. 10/389, 254, and, thus, has a priority date of March 14, 2003.

Clark (US 20050269125A1) cited in the Office Action, on the other hand, is a Continuation of U.S. Application Serial No. 10/705,672, filed on November 10, 2003, which is actually a Continuation-In-Part of U.S. Application Serial No. 10/430,365, filed on May 5, 2003, which is a Continuation of U.S. Application Serial No. 09/532,837, filed on March 21, 2000,

now U.S. Patent No. 6,596, 944, which is a Continuation of U.S. Application Serial No. 08/841,440, filed on April 22, 1997, now U.S. Patent No. 6,074,503.

Neither U.S. Patent No. 6,074,503 nor U.S. Patent No. 6,596,944 include the subject matter relied upon by the Examiner in making the above rejection. For example, Fig. 13 in Clark (US 20050269125A1), which has been relied upon by the Examiner in making in the above rejection, has been added as new Continuation-In-Part matter and has a priority date of November 10, 2003. This date is not prior to the date of March 14, 2003, which is the priority benefit date Applicant's current claims are entitled to.

Thus, neither Clark (US 20050269125A1) nor Clark (Ser. No. 10/705,672) is prior art against Applicant's current application. Moreover, both Clark (US 6,596,944) and Clark (US 6,074,503) fail to disclose or suggest all of the features of the current claims of the present application as discussed below. Thus, withdrawal of the above rejection is respectfully requested.

Claim 77

Independent claim 77, recites, among other things, a cable having a plurality of twisted pairs of conductors and a jacket defining a central passage in which the plurality of twisted pairs of conductors are located. The central passage includes air that occupies the volume between the plurality of twisted pairs of conductors. The jacket includes legs that project inwardly, the legs defining channels thereinbetween. The channels include air which is in fluid communication with the air in the central passage that occupies the volume between the plurality of twisted pairs of conductors. Each of the channels have two opposing sides, a side interconnecting the two opposing sides, wherein the side interconnecting the two opposing sides forms discretely identifiable corners with the two opposing sides, and an open side that faces inwardly toward the central axis.

Neither Clark (US 6,596,944) nor Clark (US 6,074,503) discloses or suggests a cable that includes all of the specific features recited above in claim 77. Thus, for at least this reason, independent claim 77 and dependent claims 78-85, 115, and 120-129 that depend from claim 77 are patentable over Clark (US 6,596,944) and Clark (US 6,074,503).

Claim 86

Independent claim 86, recites, among other things, a cable having a plurality of twisted pairs of conductors and a jacket within which the twisted pairs of conductors are located. The jacket defines interior air channels. The plurality of twisted pairs of conductors are exposed to air within the air channels. The interior air channels define legs thereinbetween that project inwardly toward the central axis of the jacket. The legs are attached to the jacket at outer ends and have free, unattached inner ends. Each interior air channel has two opposing sides, a side interconnecting the two opposing sides, wherein the side interconnecting the two opposing sides forms discretely identifiable corners with the two opposing sides, and an open side that faces inwardly toward the central axis of the jacket.

Neither Clark (US 6,596,944) nor Clark (US 6,074,503) discloses or suggests a cable that includes all of the specific features recited above in claim 86. Thus, for at least this reason, independent claim 86 and dependent claims 87, 88, and 116 that depend from claim 86 are patentable over Clark (US 6,596,944) and Clark (US 6,074,503).

Claim 89

Independent claim 89, recites, among other things, a cable having four or fewer twisted pairs of conductors and a jacket within which the four or fewer twisted pairs of conductors are located. The jacket defines interior channels that are circumferentially spaced relative to one another about the four or fewer twisted pairs of conductors. The four or fewer twisted pairs of data transmission conductors are exposed to gas within the interior channels. The interior channels define legs thereinbetween that project inwardly toward the central axis of the jacket. The legs are attached to the jacket at outer ends and have free, unattached inner ends. The four or fewer twisted pairs of conductors generally not occupying the interior channels.

Neither Clark (US 6,596,944) nor Clark (US 6,074,503) discloses or suggests a cable that includes all of the specific features recited above in claim 89. Thus, for at least this reason, independent claim 89 and dependent claims 90-99 that depend from claim 89 are patentable over Clark (US 6,596,944) and Clark (US 6,074,503).

Claim 100

Independent claim 100, recites, among other things, a cable having four or fewer twisted pairs of conductors defining a core and a jacket that defines an interior passage with a central region including air and a peripheral region. The four or fewer twisted pairs of conductors are positioned within the central region with the air therein occupying a volume between the four or fewer twisted pairs of conductors. The peripheral region includes a plurality of channels that are circumferentially spaced relative to one another about the central region. The channels include air, the air in the channels being in fluid communication with the air in the volume of the central region between the four or fewer twisted pairs of conductors. The core includes a separator.

Neither Clark (US 6,596,944) nor Clark (US 6,074,503) discloses or suggests a cable that includes all of the specific features recited above in claim 100. Thus, for at least this reason, independent claim 100 and dependent claims 101-103 and 117 that depend from claim 100 are patentable over Clark (US 6,596,944) and Clark (US 6,074,503).

Claim 104

Independent claim 104, recites, among other things, a cable having four or fewer twisted pairs of conductors defining a core and a jacket that defines an interior air passage with a central region including air and a peripheral region including air. The core is positioned within and is exposed to the air in the central region. The peripheral region includes a plurality of channels with air that are circumferentially spaced relative to one another about the core. The air in the channels is in fluid communication with the air in the central region to which the core is exposed. The core includes a separator.

Neither Clark (US 6,596,944) nor Clark (US 6,074,503) discloses or suggests a cable that includes all of the specific features recited above in claim 104. Thus, for at least this reason, independent claim 104 and dependent claims 105-113 and 118 that depend from claim 104 are patentable over Clark (US 6,596,944) and Clark (US 6,074,503).

Claim 114

Independent claim 114, recites, among other things, a cable having four or fewer twisted pairs of conductors defining a core and a jacket that defines a single passage with a central region in fluid communication with a peripheral region. The four or fewer twisted pairs of data conductors are positioned within the central region. The jacket includes an inner portion and an outer portion with a plurality of projections projecting inwardly from the outer portion of the jacket. The projections have inner unattached ends that define an outer boundary of the central region of the single passage. The core includes a separator.

Neither Clark (US 6,596,944) nor Clark (US 6,074,503) discloses or suggests a cable that includes all of the specific features recited above in claim 114. Thus, for at least this reason, independent claim 114 and dependent claim 119 that depends from claim 114 are patentable over Clark (US 6,596,944) and Clark (US 6,074,503).

Therefore, the Examiner is respectfully requested to withdraw the above rejection.

Claim Rejections - 35 USC § 103

In the Office Action, claims 81, 82, 94, 99, 103, 105, 109, 110, 120, 122, 123, 125, and 128 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Clark. Applicants respectfully traverse this rejection.

Claims 81, 82, 120, 122, 123, 125, and 128 depend from and further modify independent claim 77 and are patentable over Clark for at least the same reasons specified above with respect to claim 77.

Claims 94 and 99 depend from and further modify independent claim 89 and are patentable over Clark for at least the same reasons specified above with respect to claim 89.

Claim 103 depends from and further modifies independent claim 100 and is patentable over Clark for at least the same reasons specified above with respect to claim 100.

Claims 105, 109, and 110 depend from and further modify independent claim 104 and are patentable over Clark for at least the same reasons specified above with respect to claim 104.

Thus, in view of the above, withdrawal of the rejection over claims 81, 82, 94, 99, 103, 105, 109, 110, 120, 122, 123, 125, and 128 is respectfully requested.

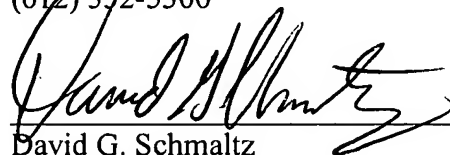
It is respectfully submitted that each of the presently pending claims (77-129) is in condition for allowance and notification to that effect is requested. Although certain arguments regarding patentability are set forth herein, there may be other arguments and reasons why the claimed invention is patentably distinct. Applicants reserve the right to raise these arguments in the future. The Examiner is invited to contact Applicants' representative at the below-listed telephone number if it is believed that the prosecution of this application may be assisted thereby.

Respectfully submitted,

MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, Minnesota 55402-0903
(612) 332-5300

Date: _____

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David G. Schmaltz
Reg. No. 39,828
DSchmaltz/AS/dc